Technical Committee 184: Industrial automation systems and integration
Subcommittee 4: Industrial data

TC 184/SC4 N1163

2001-05-02

ISO Committee Draft Ballot for ISO 10303-0107 Integrated application resource: Finite element analysis definition relationships

Enclosed is the ballot for ISO 10303-0107, "Integrated application resource: Finite element analysis definition relationships".
This part of ISO 10303 specifies associations between the idealised concepts that are used in a finite element analysis, and the design specifications for these concepts. In the definition of a finite element model:

the set of analysis steps is an idealisation of an action;
the surface and curve section properties are idealisations of product properties;
an analysis state is the idealisation of a state of the product.
The analysis results are predictions of properties possessed by a state of the product.

The design specification information is managed by a PDM system. The associations supported by this part of ISO 10303, support the navigation to finite element from information from the design information within a PDM system.

The following are within the scope of this part of ISO 10303:

an association between a set of a finite element analysis steps and the design or specification for an action;
an association between a finite element analysis state and a design or specification for a product state;
an association between a finite element analysis result and a property which is possessed by a product state;
an association between a surface or curve section property in a finite element model and a property which is possessed by a product;
an association between a node or element in a finite element model and an aspect of the topology of the product.

The following are not within the scope of this part of ISO 10303:

the identification or description of an action;
the identification or description of a product, or state of a product;
the identification or description of a property;
the topology of a product;
a finite element model of a product.

P-members are asked to complete a ISO Form 8, Vote on Committee Draft, and provide this form with their comments to ISO TC 184/SC4 Secretariat. http://www.nist.gov/sc4/step/parts/part107/CD/forms

BALLOTS ARE DUE TO THE SC4 SECRETARIAT NO LATER THAN 2001-09-16

The document is available digitally through SOLIS via ftp or www http://www.nist.gov/sc4/step/parts/part107/CD
This document is from the ISO 10303 NWI proposal for EACM. This part is one of several from that effort.

Address reply to:
ISO TC 184/SC4 Secretariat
National Institute of Standards and Technology
Building 220, Room A127
Gaithersburg, MD 20899 USA
Phone: +1-301-975-4375 Telefax: +1-301-975-4694 Email: sc4sec@cme.nist.gov url - http://www.nist.gov/sc4/